Application No.: 10/697,948   **Docket No.: 200309856-2 US (1509-454)**

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A backup system for storing data objects <u>to be backed up</u> on secondary storage devices, the backup system comprising a plurality of buffer memories for ~~interfacing~~ <u>storing the data objects to be backed up and for coupling the data objects to be backed up</u> with the secondary storage devices ~~and~~<u>,</u> the back up system being configurable to couple at least a sub-set of the buffer memories in a daisy-chain for sequential storage of the data in the daisy chain as <u>the</u> data objects <u>to be backed up</u> on one of the secondary storage devices<u>, at least one backup media agent having a plurality of the buffer memories, a program module for sequentially writing data from the at least the subset of the buffer memories to an output adapted to be coupled to a secondary storage device assigned to the at least one backup media agent, and at least one mirroring backup media agent, the mirroring back up media agent comprising a plurality of further buffer memories and a further program module for writing data from the further buffer memories to one of the secondary storage devices assigned to the at least one mirroring backup media agent, and at least a sub-set of the buffer memories of the at least one backup media agent being coupled in a daisy-chain configuration to at least a sub-set of the further buffer memories of the at least one mirroring backup</u>

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media agent.

2.   (Cancelled)

3.   (Currently amended) The backup system of claim [[2]] 1, further comprising a backup group having a plurality of the backup media agents.

4.   (Cancelled)

5.   (Currently amended)   The backup system of claim [[4]] 1, further comprising at least one mirror group comprising a plurality of the mirroring backup media agents.

6.   (Currently amended)   The system of claim [[4]] 1, at least first and second ones of the mirroring backup media agents being coupled in a cascaded configuration for providing first and second mirroring levels.

7.   (Currently amended)   The backup system of claim [[2]] 1, further comprising at least one restore media agent comprising a plurality of buffer memories and a program module for reading data objects from one of the secondary storage devices assigned to the at least one restore media agent, at least a sub-set of the buffer memories of the at least one restore media agent being coupled to at least a sub-set of the buffer memories of the backup media agents.

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8.   (Original)   The backup system of claim 7, further comprising at least one restore group having a plurality of the restore media agents.

9.   (Original)   The backup system of claim 7, further comprising a copy group, the copy group having a plurality of the backup media agents.

10.   (Original)   The backup system of claim 1, further comprising a plurality of client computer systems and a backup server, the plural client computer systems having primary storage devices for storing the data objects, and each client computer system having a backup component for assigning an unequivocal identifier to data objects and for sending the data objects with the assigned unequivocal identifiers to the backup server.

11.   (Currently amended)   A server computer system comprising:

a plurality of buffer memories for sequentially coupling data stored in at least some of the buffer memories to one of plural backup storage devices,

and a configuration file for defining a configuration of the buffer memories for providing at least one level of data mirroring in the buffer memories, and for enabling the mirrored data stored in the buffer memories and data that are not mirrored and are stored in the buffer memories to be coupled to the backup storage device.

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12.   (Previously presented)   A server computer system comprising:

a plurality of buffer memories for coupling data stored in the buffer memories to a

plurality of secondary storage devices,

a configuration file for defining a daisy-chain configuration of the buffer memories

for sequential copying of data objects from a first sub-set of the secondary storage.

devices to a second sub-set of the secondary storage devices.

13.   (Cancelled)

14.   (Previously presented)   A memory storing a computer program for

controlling a computer system for providing a user interface, the computer program

comprising instructions for enabling a user to enter a specification for a configuration of

buffer memories of a backup system, and for enabling the buffer memories to interface

with secondary storage devices for sequential storing or copying of data objects from at

least some of the buffer memories to one of the secondary storage devices.

15.   (Original)   The memory of claim 14, wherein the instructions enable a

user to specify a daisy-chain configuration of the buffer memories.

16.   (Previously presented)   The memory of claim 14, wherein the

instructions enable a user to specify a backup group comprising a plurality of backup

media agents, each backup media agent having a plurality of buffer memories and a

program module for writing data from the buffer memories to one of a plurality of

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secondary storage devices assigned to the backup media agent.

17.   (Original)   The memory of claim 16, wherein the instructions enable a user to enter a mirror group comprising a plurality of buffer memories and the program module for writing of data from the buffer memories to one of the secondary storage devices being assigned to the mirroring media agent, and for specifying the coupling of a at least a sub-set of the buffer memories of the backup media agents and at least the sub-set of the buffer memories of the mirroring backup media agents.

18.   (Original)   The memory of claim 14, wherein the instructions enable a user to enter a restore group, the restore group comprising a plurality of backup media agents.

19.   (Original)   The memory of claim 18, wherein the computer instructions enable a user to enter at least one copy group, the copy group comprising backup media agents.

20.   (Currently amended)   A method of storing data objects to be backed up on secondary storage devices by using ~~plurality~~ plural buffer memories at least a sub-set of which is coupled in a daisy chain configuration, the method comprising the step of:

sequentially storing the data objects to be backed up on one of the secondary

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storage devices by sequentially reading the data ~~object~~ objects to be backed up from

the buffer memories coupled in the daisy chain configuration to the one secondary

storage device; and

coupling the sub-set of the buffer memories in the daisy-chain configuration prior

to the data objects being read from the buffer memories.

21.   (Cancelled)

22.   (Currently amended)   The method of claim [[21]] 20, wherein the

buffer memories are coupled to provide one or more data mirroring stages.

23.   (Currently amended)   The method of claim [[21]] 20, wherein the

buffer memories are coupled to provide one or more data copying stages.

24. (New)   Apparatus for backing up memories of several client computers to

plural secondary storage devices, each of the client computers including a data source

backup agent, the apparatus comprising a backup group including plural backup media

agents, different ones of said backup media agents being associated with different ones

of the client computers, each of the backup media agents including plural buffers, each

of said buffers being associated with a different one of the client computers and for

storing data of the memory of the associated client computer, each of the backup media

agents including a program module for (a) interacting with the data source backup

agents of the client computers associated with the particular backup media agent to

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receive backup data from the client computers associated with the particular backup media agent, (b) routing the received backup data from the client computers to the buffers associated with the client computers, (c) sequentially combining the backup data in the buffers of the backup media agent including the particular program module into a single sequence and (d) coupling the single sequence to an output adapted to drive a secondary storage device associated with the particular backup media agent.

25. (New) The apparatus of claim 24 further including a mirror group associated with each backup media agent, each mirror group including plural further buffers and a further program module, the plural further buffers and further program module of each mirror group being arranged in the same way as the backup media agent associated with the mirror group so the mirror group duplicates the action of its associated backup media agent for enabling the further program module to couple a further single sequence to a further secondary storage device associated with the particular mirror group.

26. (New) The apparatus of claim 24 further including a mirror group associated with each backup media agent, each mirror group including plural further buffers and a further program module, the further program module and the plural further buffers being arranged for causing (a) objects stored in the buffers of the backup media agents to be forwarded to and stored in the plural further buffers of the mirror group associated with a particular backup media agent, (b) objects stored in the plural further buffers of the mirror group associated with the particular backup media agent to be

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sequentially combined into a further single sequence, and (c) the further single sequence to be coupled to an output adapted to drive a secondary storage device associated with the particular mirror group.

27. (New)   The apparatus of claim 24 in combination with the several client computers, at least one of the client computers including an arrangement for enabling a user to select files to be backed up in the buffer associated with the at least one client computer.

28. (New)   The apparatus of claim 24 in combination with the several client computers, each of the client computers including an identification generator for generating an unequivocal identifier for a given data packet in a particular data sequence, the apparatus of claim 24 including a configuration data storage device for specifying which data sources of the client computers are to be backed up and for defining the backup media agents.

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